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REPORT OF THE ECA/UNDP/IBRD TRANSPORT STUDY FOR AFRICA, SOUTH OF THE SAHARA

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TABLE OF CONTENTS

		Paragraphs	Page
A.	INTRODUCTION	1 - 2	1
B.	OBJECTIVES	3 - 6	1
C.	BACKGROUND AND JUSTIFICATION	7 -10	2
D.	PROGRAMME COMPONENTS	11-12	3
	1. Survey component	13-14	4
	2. Series of African Transport Policy Workshops	15-16	4
	3. Research studies	17	5
	(a) Transport and agricultural development	18	6
	(b) Transport and Taxation	19-20	6
	(c) Trucking costs	21	6
	(d) Transport and international trade	22-24	7
	4. Human resources development programme	25-26	7
E.	OUTPUTS OF THE PREPARATORY PHASE	27-30	8
F.	FUTURE ACTIONS AND FINANCING SUPPORT	31-32	8

A. INTRODUCTION

1. The World Bank, in collaboration with the Economic Commission for Africa (ECA), is embarking on a major review of transport policy in sub-Saharan Africa. This will require a close examination of available data sources, new empirical research, discussion and analysis concerning transport conditions, constraints and policies, and exchange of views among governments and other actors in the development process.

2. This document summarizes the approach proposed. It is intended to serve as a basis for further discussion, and as part of the process of defining a programme of action. UNDP has agreed to finance the preparatory phase of seven months which started in September 1986; the implementation phase, which it is hoped will be financed by UNDP, bilateral donors and the World Bank, is expected to begin early in 1987 and last about 18 months.

B. OBJECTIVES

3. The general objective is to help the transport development of sub-Saharan African countries and their subregions by furnishing empirically founded guidance for investment and the efficient use of existing capital and human resources. The programme is intended to respond to the concerns raised in the ECA review of the first phase of the United Nations Transport and Communications Decade in Africa, and by other regional or national organizations involved in transport development in the region, and to complement related studies and programmes by these organizations.

4. Specifically, the programme is intended to improve transportation policy by:

(a) More innovative response to rural transport demand through policy changes to encourage service provision;

(b) More efficient operation and maintenance of present transport infrastructure and equipment (especially ports and railways);

(c) Facilitation of international trade (all modes);

(d) Better pricing and taxation policies in all modes;

(e) Greater support for private sector transporters particularly truckers;

(f) Faster development of human resources in the transport sector.

5. To accomplish these objectives, it will be necessary to meet two secondary objectives:

(a) Identification and filling of gaps in the knowledge of the transport sector in sub-Saharan Africa; and

(b) Increasing the institutional capacity for data collection and analysis, as well as planning and management of the transport sector.

6. The approach envisaged for the programme includes surveys, workshops, studies and research. To provide guidance and co-ordination at the highest level an international advisory committee is established, with members representing high-level African transport policy-makers, United Nations specialized agencies and multinational and bilateral institutions concerned with financing transport development in Africa.

C. BACKGROUND AND JUSTIFICATION

7. The programme's origin lies in the experience of the World Bank in the transport sector in Africa and in the experience gathered in the First Phase of the United Nations Transport and Communications Decade in Africa (UNTACDA)[1/]. This experience points to critical impediments to the development of transport in sub-Saharan Africa.

8. The sources of those impediments are to be found partly in specific conditions characteristic of many African countries such as: low density of settlements; a relatively high number of land-locked countries; lack of industrialization; lack of financing; and scarcity of expert human resources. The recent adverse turn in economic conditions has compounded these problems, and reduced the value of the natural as well as the fiscal resources of many African States. Aggravating factors, in these circumstances, are inadequacies in the management of transport infrastructure and service enterprises and in the fiscal, pricing and regulatory regimes that govern transport activities, as well as a reduced flow of resources to the authorities that finance the infrastructure and facilities. A major consequence of these conditions is inadequate maintenance of transport infrastructures and equipment causing heavy losses of both assets and current resources. The end result is a low level of market integration, among countries and within many countries in sub-Saharan Africa, leading to surprisingly large differences between the prices of similar commodities in adjacent countries and subregions.

9. There appears to be a substantial consensus on the most critical problems facing transport in the region. Some relate to the transport requirements of long-term economic and social development, such as:

- The selection, design, and evaluation of infrastructure investment projects and service development (particularly in rural areas);

- Provision of transport in conditions of low density; and

- Transport requirements for the development of Africa's trade.

10. Other critical problems involve the efficient use of resources, and call for policies and measures which should yield returns in both the short-term and the long-term. These problems are:

1/ United Nations, United Nations Transport and Communications Decade in Africa, 1978-1988. Volume III, Approved Programme of Action for the Second Phase, 1984-1988. Analysis and Presentation of the Transport Sector Programme. (E/ECA/TCD/16) chapters 2 and 9.

- Taxation and cost recovery;

- Measures to relieve the constraints on full utilization of available equipment;

- The division of activities and responsibilities between public and private sectors;

- The lowering of non-physical impediments to the development of transport in international trade; and

- Raising the productivity of available human resources.

D. PROGRAMME COMPONENTS

11. The programme is expected to consist of four elements as follows:

(a) Surveys of data sources in sub-Saharan African countries, designed to develop a consistent transport data base;

(b) A series of workshops, with appropriate background studies, designed to present known areas of policy options for discussion and use by African policy-makers and operational managers;

(c) A set of research studies, designed to strengthen policy areas where the factual basis for policy is not yet established;

(d) A manpower/human resource development programme.

Each of these components is described in more detail in paras. 12 to 29 below. It should be noted at the outset, however, that the selection of the components was guided by certain principles, for example:

(a) That the programme of components should not duplicate but rather complement the work being carried out by other agencies or institutions;

(b) That the problems of transport are linked to the other sectors of the economy for which transport is a service, and this may require a multi-disciplinary approach;

(c) That the programme be planned and executed in collaboration with the United Nations specialized agencies, African Development Bank (ADB), Southern African Transport Co-ordination Committee (SATCC), and other regional and international organizations, including bilateral donors interested in transport.

12. The details of the four components were being worked out in the programme's preparatory phase. The following description of final outputs should therefore be regarded as preliminary, and subject to refinement or shifts in emphasis.

1. Survey component

13. The survey component will be designed to produce a report on the state of transport in sub-Saharan Africa - describing the current situation, identifying trends, and pointing out problem areas which warrant special attention from governments and the international community. At the same time, its preparation will help governments improve their own data collection procedures, and serve as a prototype for perhaps every five or seven years' future periodic reassessments.

14. While the survey component will have an independent existence and purpose, it will obviously be essential to link the survey activities closely with the various research undertakings which are described later. A good deal of the work will be based on existing materials, available principally in the World Bank, IMF, ECA and ADB, and supplementary information will be obtained, as necessary, by direct enquiry from African Governments, intergovernmental organizations, and field work. The six main areas to be covered by surveys are likely to be:

(a) Extent and state of transport infrastructure and equipment: roads and road vehicle fleets; railways and rolling stock; shipping and inland water fleets including maritime/inland water ports; and airports and aircraft;

(b) Traffic flows: estimated annual t/km by mode, urban and other; passengers and passenger/km by mode; tonnage of freight carried by mode; and port throughput (maritime and inland water);

(c) Transport costs: average costs for transport of freight and passengers per ton km or pass km, by mode, internal to each country, from export areas to neighbouring country market centres, and from export areas to the nearest ports;

(d) Transport investment, from 1970 to present: public sector (wide country coverage); public and private sector investment in equipment (sample); investment policy, planned and actual (sample); sources of capital (sample);

(e) Allocations to infrastructure and services, from 1970 to present: recurrent capital and expenditure in relation to total government expenditure and fiscal balance; revenues raised from transport (sample of countries);

(f) Survey of transport policy: system of regulation; public sector share in transport service provision; financial results of major sectors; recent statement of transport policy affecting investment, services, and financing (sample).

2. Series of African transport policy workshops

15. A series of five to eight workshops will be conducted to encourage discussion among African policy-makers of alternative transport policies and to present case studies of their effects. Participants would be senior level African executives who would be selected according to the workshop subject. Background papers and studies would be prepared emphasizing the considerations which appear to be important in African settings. Transfer of technology from more developed countries, and successful adaptations of technology in sub-Saharan Africa would also be examined. Following each workshop a summary of the proceedings together with a statement of policy recommendations would be issued.

16. Topics being considered for workshops are those where there is need for dissemination of relatively well-known data or policy impacts; for cross-fertilization of ideas on policy options among African decision-makers; and for intermediate level investigations, beyond simple data gathering but less than detailed research. Workshop topics now under active consideration include the following:

(a) Development of Local Construction Industries;

(b) Road Maintenance Management;

(c) Design of Low Volume Roads;

(d) Port and Shipping Management;

(e) Railway Efficiency Improvement;

(f) Development of Regional Civil Aviation;

(g) Inter-Modal Transport Development;

(h) Facilitation of International Transport;

(i) Constraints on Intra-African Trade;

(j) Transport Financing and Cost Recovery;

(k) Management of Government Transport Enterprises;

(l) Planning Transport for Emergencies;

(m) Manpower Development in the Transport Sector.

The final list of workshops will be drawn up jointly between the World Bank and ECA with input from bilateral donors during the preparatory phase.

3. Research studies

17. After an extensive review, the following four areas have been selected as requiring research in greater depth than the workshop topics suggested above:

(a) Transport and agricultural development;

(b) Transport and taxation;

(c) Trucking costs;

(d) Transport and international trade.

These four areas are described briefly in paragraphs 17 to 23 below.

(a) Transport and agricultural development

18. The various aspects of transport interaction with agriculture in sub-Saharan Africa are not well understood, as evidenced by inappropriate feeder road location and design, and inadequate transport services and vehicle fleets accompanying infrastructure investment. In order to design more suitable infrastructure and determine how to relieve constraints on transport services and equipment, more research is required concerning local response (and the lags in response), to:

(i) New infrastructure in areas severely lacking in transport infrastructure (disenclavement);

(ii) Provision of superior substitutes for transport services and/or infrastructure;

(iii) Provision of improved transport services and infrastructure under different systems of pricing, wages, land ownership, import policies, and foreign exchange controls;

(iv) Local participation in road construction and maintenance.

Research sites would be selected to reflect different physical/environmental features and different socio-cultural farming systems which may have affected the impact of past investments.

(b) Transport and taxation

19. Most countries in sub-Saharan Africa have taxes on transport which arise out of considerations other than transport efficiency (e.g., raising revenues) which vary in their application to different modes, especially road and rail. These are further complicated by subsidies to public or parapublic operating agencies which lead to distortions in investment and allocation of traffic from lower cost to higher cost modes.

20. Topics requiring empirical investigation include optimal levels and optimal differentials (between modes, services) and mix of taxes, over and above rational road user charges; the scope for correcting distortions elsewhere through taxation and subsidization; tax avoidance (through substitutions between vehicles and modes) and transit taxes. The study would make use of current World Bank research on road user charges. The scope of exploration will be determined by data resources, and the scope for supplementing them by simulation and sensitivity analysis.

(c) Trucking costs

21. Trucking costs appear to be relatively high in many sub-Saharan countries, with consequent effects on costs of imports and exports, and on international trade potential, especially for land-locked countries. Attempts to regulate traffic rates for trucking have not solved the porblem, and policies on import restrictions have made it worse in some cases. Research is needed to identify:

(a) The relative size of policy effects on transport costs, and their impact on the economy;

(b) Possible policy changes that would affect trucking costs.

The study will analyse the effects on trucking costs of the organization of trucking industry and of levels of vehicle utilization associated with the extent of state-owned fleets, import regimes and the system of transport regulations. Field investigation of the determinants of major inter-country differences in the relative cost of trucking would be carried out in about six countries.

(d) Transport and international trade

22. Trade flows among sub-Saharan African States and among African subregions are small and highly variable. To the extent that these flows are restricted by transport constraints, border procedures and transit policies, there is a cost to the countries involved. The level of this cost and the effects on countries' economic structures are unknown and research is needed to determine if they are significant enough to support policy changes in this area.

23. This research would examine the components of transport and transit costs for specified flows of exports and imports, comparing those from African origins with those of similar goods from other origins, and investigate costs resulting from regulations. It will cover all transport modes. It will also investigate precedents and possibilities for joint economic action by land-locked and transit countries, and will be conducted in close consultation with the authorities and industries in a sample of sub-Saharan countries. It will build on, and complement, the work and experience on developing trans trade of the United Nations Economic Commission for Africa, the Inter-State Facilitation Commission established by the Governing Council of the Trans-East African Highway Authority and UNCTAD.

24. The studies and research outlined above will all be undertaken in collaboration with qualified institutions or individuals in the countries in which empirical work is to be carried out, and with appropriate regional and subregional organizations.

4. Human resources development programme

25. The remaining area of substantial policy interest which has been identified is the development of human resources for the transport sector. It is clear that a strategy for managing human resource constraints is needed in sub-Saharan transport. The questions of optimal use of technical assistance resources, strategies for upgrading local institutions, and human resource management in the transport sector are major issues.

26. Substantial effort is needed to continue and to supplement ECA's work (Survey of manpower and training needs in transport, training needs and facilities for ports of Eastern and Southern Africa; and current levels of skills, training needs, and training facilities in inland water transport), and work by ILO and IMO. The next step is to estimate manpower requirements, assess available human resources, management practices and options (with special attention to career planning and incentives) and determine optimum use of expatriate technical assistance in a training context. Broad strategies are needed for combining local and expatriate resources and for developing over time an economically adequate supply of skills from regional and national institutions. The intention is to design a combined programme of surveys, consultations, and pilot activities in a selected set of countries as the basis for proposals of wider applications subsequently.

E. OUTPUTS OF THE PREPARATORY PHASE

(a) Surveys

27. The preparatory phase of this programme will identify the types of data to be collected in surveys, the institutions and team leaders to be involved, and draw up an inventory of available data and an assessment of its quality. Specifications will be drawn up and tested for each type of data, and available national and international resources will be identified.

(b) Workshops

28. The preparatory phase will also refine the topics selected for the workshops and determine the appropriate level of background studies and preparation effort for the issue papers which should precede each workshop. Terms of reference will be drawn up for studies and a selection of case study countries most suitable for each topic will be made. A timetable and programme will be developed for each workshop.

(c) Research

29. For the four research studies, the specific policy issues which require a research effort will be identified. Specific research sites will be selected and a research programme drawn up for each site. A highly qualified principal investigator will prepare each research programme.

(d) Human resources development

30. The human resources development programme will be designed in co-ordination with the countries involved. Proposals will be put forward for pilot programmes in selected countries, with the understanding that such programmes will be carefully monitored and changed if necessary during the implementation phase.

F. FUTURE ACTIONS AND FINANCING SUPPORT

31. It is intended as an indirect but important result of the programme that African research institutions and transportation planning and management institutions, both national and regional, would be strengthened to carry out continuing data collection, analysis, planning and research.

32. It is the intention of ECA, UNDP, and the World Bank Transportation Department to pursue the objective of advancing the transport development of sub-Saharan Africa, in the context of the region's specific and diverse physical, economic and social conditions. This programme will complement and refine the experience gathered and the directions pointed in the course of the evaluation of the United Nations Transport and Communications Decade in Africa. The final proposals for studies and actions which emerge from the preparatory phase will be presented to the UNDP for financial support. The World Bank will also seek parallel support from bilateral donors for the implementation phase.